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| 10/526,547 | 03/03/2005 | Jyri Hamalainen | 59643.00583 | 5269 |

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| EXAMINER | |
|---|---|
| HERRERA, DIEGO D | |
| **ART UNIT** | **PAPER NUMBER** |
| 2617 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/526,547 | HAMALAINEN ET AL. | |
| | Examiner | Art Unit | |
| | Diego Herrera | 2617 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *03 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 March 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Specification*

This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim are 1-5, 7-13, and 15-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Archambaud et al. (US patent 6115367), and in view of Fischer et al. (US patent 5621786).

Regarding claims 1 and 9. (Original) Archambaud et al. discloses a method of initiating a telecommunications uplink from a mobile terminal to a telecommunications network (abstract, title, col. 3 lines: 50-54, col. 5 lines: 23-26, 29-32, Archambaud et al. teaches uplink between the base station to the mobile terminal), the mobile terminal having a transmission chain including a baseband stage (col. 5 lines: 19-22, Archambaud et al. teaches baseband signal in PHS protocol slot format), a power amplification stage and an antenna (abstract, Archambaud et al. teaches plurality antennas), the method including the steps of:

(a) transmitting a preamble signal from the mobile terminal, the preamble signal being transmitted in accordance with a transmission parameter of the mobile terminal (col. 4 lines: 37-44, Archambaud et al. teaches preamble signal);

(b) determining whether a base station has successfully received the preamble signal and if so, establishing an uplink to the base station on the basis of the first transmission parameter (col. 4 lines : 37-39, Archambaud et al. teaches the preamble is send before other messages);

(c) in the event it is not determined that a base station has successfully received the

preamble signal, changing the transmission parameter, and repeating steps (a) and (b); wherein the transmission parameter controls one or more of the baseband stage (col. 5 lines: 19-22, Archambaud et al. teaches baseband signal in PHS protocol slot format), however, Archambaud et al. does not specifically discloses power amplification stages, nevertheless, Fischer et al. teaches the limitation (col. 10 lines: 20-22, Fischer et al. teaches power amplifier hence power amplification stages); therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made by Fischer et al. to specifically include power amplification stages as taught by Fischer et al. for the purposes of cost effective management;
and the antenna such that changing the transmission parameter in step (c) results in an alteration of the signal diversity of one or more preambles as received by the base station (col. 7 lines: 29-32, Archambaud et al. teaches flexibility of the antenna diversity selection).

Consider claim 2. (Original) A method according to claim 1, the combination discloses wherein the transmission chain includes at least two antennae, and the transmission parameter determines which of the antennae the preamble is transmitted from (abstract, col. 2 lines: 61, Archambaud et al. teaches multiple antennas).

Consider claim 3. (Original) A method according to claim 2, the combination discloses wherein the preamble is transmitted from only one of the antennae at a time (col. 2 lines: 63-66, Archambaud et al. teaches first antenna sending information and data in

slots).

Consider claim 4. (Currently Amended) A method according to claim 1, the combination discloses wherein the transmission parameter includes a frequency band, each preamble being transmitted via the frequency band indicated by the current transmission parameter (fig. 2, Archambaud et al. teaches frame frequency with slots).

Consider claim 5. (Currently Amended) A method according to claim 1, the combination discloses wherein the transmission chain includes a plurality of antennae in an antenna array (col. 2 lines: 63-66, Archambaud et al. teaches first antenna sending information and data in slots), and directionality of a beam formed by signals transmitted from the array is selected for each preamble transmission based on the transmission parameter (col. 27 lines: 59-61, Fischer et al. teaches the use of a directional antenna).

Consider claim 7. (Currently Amended) A method according to claim 1, the combination discloses wherein the uplink is established in accordance with the transmission parameter used when the base station successfully received the preamble (col. 5 lines: 19-22, Archambaud et al. teaches baseband signal in PHS protocol slot format).

Consider claim 8. (Currently Amended) A method according to claim 1, the combination discloses wherein the transmission parameter includes a power level at which each preamble is transmitted, the power level being increased between at least some

sequentially adjacent preamble transmissions (col. 10 lines: 20-22, Fischer et al. teaches power amplifier hence power amplification stages).

Consider claim 10. (Original) A mobile telecommunications terminal according to claim 9, the combination discloses wherein the transmission chain includes at least two antennae (abstract, Archambaud et al. teaches plurality antennas), and the transmission parameter determines which of the antennae the preamble is transmitted from (col. 2 lines: 63-66, Archambaud et al. teaches first antenna sending information and data in slots).

Consider claim 11. (Original) A mobile telecommunications terminal according to claim 10, the combination discloses wherein the preamble is transmitted from only one of the antennae at a time (col. 2 lines: 63-66, Archambaud et al. teaches first antenna sending information and data in slots, one is used to send and the other to receive).

Consider claim 12. (Currently Amended) A mobile telecommunications terminal according to claim 9, the combination discloses wherein the transmission parameter includes a frequency band, each preamble being transmitted via the frequency band indicated by the current transmission parameter (fig. 2, Archambaud et al. teaches frame frequency with slots).

Consider claim 13. (Currently Amended) A mobile telecommunications terminal

according to claim 9, the combination discloses wherein the transmission chain includes a plurality of antennae in an antenna array, and directionality of a beam formed by signals transmitted from the array is selected for each preamble transmission based on the transmission parameter (col. 27 lines: 59-61, Fischer et al. teaches the use of a directional antenna).

Consider claim 15. (Currently Amended) A mobile telecommunications terminal according to claim 9, the combination discloses wherein the uplink is established in accordance with the transmission parameter used when the base station successfully received the preamble (col. 5 lines: 19-22, Archambaud et al. teaches baseband signal in PHS protocol slot format).

Consider claim 16. (Currently Amended) A mobile telecommunications terminal according to claim 9, the combination discloses wherein the transmission parameter includes a power level at which each preamble is transmitted, the power level being increased between at least some sequentially adjacent preamble transmissions (col. 10 lines: 20-22, Fischer et al. teaches power amplifier hence power amplification stages).

Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Archambaud et al. (US patent 6115367), and in view of Fischer et al. (US patent 5621786) and further in view of Ansbro (EP 0749216 A1).

Consider claims 6 and 14. (Original) A method according to claim 5, the combination does not discloses wherein the transmission chain includes a phase shifting means for shifting the phase of the signals supplied to the individual antennae in the antenna array, the phase shifters being controllable on the basis of the transmission parameter, nevertheless, Ansbro teaches the limitation (col. 3 lines: 57-60, col. 4 lines: 1-2, 55-58, Ansbro teaches phase shifting). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made by Archambaud et al. and Fischer et al. to specifically include wherein the transmission chain includes a phase shifting means for shifting the phase of the signals supplied to the individual antennae in the antenna array, the phase shifters being controllable on the basis of the transmission parameter as taught by Ansbro for the purposes of being more efficient communication device (abstract)

## *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diego Herrera whose telephone number is (571) 272-0907. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Diego Herrera
Patent Examiner

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